

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (previously presented): A polymer blend for fabricating medical products comprising:
a first low crystallinity syndiotactic 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature; and
a second syndiotactic 1,2 polybutadiene present from about 1% to 99% by weight of the blend and having a melting point temperature higher than the first melting point temperature.

Claim 2 (original): The blend of claim 1 wherein the first melting point temperature is less than about 100°C.

Claim 3 (original): The blend of claim 1 wherein the first melting point temperature is less than about 90°C.

Claims 4-6 (canceled).

Claim 7 (previously presented): The blend of claim 1 wherein the second syndiotactic 1,2 polybutadiene is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 8 (original): The blend of claim 1 further comprising an effective amount of a hindered amine.

Claim 9 (previously presented): An irradiated polymer blend for fabricating medical products, comprising:

a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature;
a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature; and
the blend having a gel content of at least 20%.

Claim 10 (original): The blend of claim 9 wherein the first melting point temperature is less than about 100°C.

Claim 11 (original): The blend of claim 9 wherein the first melting point temperature is less than about 90°C.

Claim 12 (original): The blend of claim 9 wherein the first 1,2 polybutadiene is a first syndiotactic 1,2 polybutadiene.

Claim 13 (original): The blend of claim 12 wherein the first syndiotactic 1,2 polybutadiene is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 14 (original): The blend of claim 12 wherein the second 1,2 polybutadiene is a second syndiotactic 1,2 polybutadiene.

Claim 15 (original): The blend of claim 14 wherein the second syndiotactic 1,2 polybutadiene is a second low crystallinity syndiotactic 1,2 polybutadiene.

Claim 16 (original): The blend of claim 9 further comprising an effective amount of a hindered amine.

Claim 17 (withdrawn): A tubing comprising:
a sidewall of a polymer blend comprising a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature, and a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature.

Claim 18 (withdrawn): The tubing of claim 17 wherein the first melting point temperature is less than about 100°C.

Claim 19 (withdrawn): The tubing of claim 17 wherein the first melting point temperature is less than about 90°C.

Claim 20 (withdrawn): The tubing of claim 17 wherein the first 1,2 polybutadiene is a first syndiotactic 1,2 polybutadiene.

Claim 21 (withdrawn): The tubing of claim 20 wherein the first syndiotactic 1,2 polybutadiene is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 22 (withdrawn): The tubing of claim 20 wherein the second 1,2 polybutadiene is a second syndiotactic 1,2 polybutadiene.

Claim 23 (withdrawn): The tubing of claim 22 wherein the second syndiotactic 1,2 polybutadiene is a second low crystallinity syndiotactic 1,2 polybutadiene.

Claim 24 (withdrawn): The tubing of claim 17 further comprising an effective amount of a hindered amine.

Claim 25 (withdrawn): A tubing comprising:
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a sidewall of a polymer blend comprising a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature, a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature; and

the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys.

Claim 26 (withdrawn): The tubing of claim 25 wherein the first melting point temperature is less than about 100°C.

Claim 27 (withdrawn): The tubing of claim 25 wherein the first melting point temperature is less than about 90°C.

Claim 28 (withdrawn): The tubing of claim 25 wherein the first 1,2 polybutadiene is a first syndiotactic 1,2 polybutadiene.

Claim 29 (withdrawn): The tubing of claim 28 wherein the first syndiotactic 1,2 polybutadiene is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 30 (withdrawn): The tubing of claim 28 wherein the second 1,2 polybutadiene is a second syndiotactic 1,2 polybutadiene.

Claim 31 (withdrawn): The tubing of claim 30 wherein the second syndiotactic 1,2 polybutadiene is a second low crystallinity syndiotactic 1,2 polybutadiene.

Claim 32 (withdrawn): The tubing of claim 25 further comprising an effective amount of a hindered amine.

Claim 33 (withdrawn): A tubing comprising:

a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature;

a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature;

the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys; and

wherein the tubing is capable of delivering fluid in response to energy applied to the tubing by a medical infusion pump for a 24 hour period without generating visible particulate matter.

Claim 34 (withdrawn): The tubing of claim 33 wherein the tubing has an original cross-sectional diameter and retains 95% of the original cross-sectional diameter after stretching the tubing with a 5 lb weight for 10 seconds.

Claim 35 (withdrawn): A tubing for use with an infusion pump comprising:
a first low-crystallinity syndiotactic 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature;
a second low-crystallinity syndiotactic 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature;
the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys; and
wherein the tubing is capable of delivering fluid in response to energy applied to the tubing by a medical infusion pump for a 24 hour period without generating visible particulate matter.

Claim 36 (withdrawn): The tubing of claim 35 wherein the tubing has an original cross-sectional diameter and retains 95% of the original cross-sectional diameter after stretching the tubing with a 5 lb weight for 10 seconds.

Claim 37 (withdrawn): A multiple layered tubing comprising:
a first layer of a polymer blend comprising a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature, and a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature; and
a second layer of a polymeric material attached to the first layer and concentrically disposed with respect thereto.

Claim 38 (withdrawn): The tubing of claim 37 wherein the second layer is a polyolefin.

Claim 39 (withdrawn): The tubing of claims 38 wherein the polyolefin is obtained from a polymerizing an olefin.

Claim 40 (withdrawn): The tubing of claim 39 wherein the olefin is selected from the group consisting of cyclic olefins, and acyclic olefins.

Claim 41 (withdrawn): The tubing of claim 39 wherein the polyolefin is a 1,2 polybutadiene.

Claim 42 (withdrawn): The tubing of claim 39 wherein the polyolefin is a syndiotactic 1,2 polybutadiene.

Claim 43 (withdrawn): The tubing of claim 39 wherein the polyolefin is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 44 (withdrawn): The tubing of claim 43 wherein the second layer is concentrically positioned about the first layer.

Claim 45 (withdrawn): The tubing of claim 43 wherein the second layer is concentrically positioned inside the first layer.

Claim 46 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity less 50%.

Claim 47 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity less than about 45%.

Claim 48 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of less than about 40%.

Claim 49 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of from about 13% to about 40%.

Claim 50 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of from about 15% to about 30%.

Claim 51 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a melting point temperature of less than about 90°C.

Claim 52 (withdrawn): The tubing of claim 45 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a melting point temperature of higher than about 91°C but less than 120°C.

Claim 53 (withdrawn): A multiple layered tubing comprising:
a first layer of a polymer blend of a first low crystallinity syndiotactic 1,2 polybutadiene having a first melting point temperature lower than about 90°C and present from about 1% to about 99% by weight of the blend and a second low crystallinity syndiotactic 1,2 polybutadiene having a second melting point temperature higher than about 91°C and present from about 1% to about 99% by weight of the blend; and
a second layer of a polymeric material attached to the first layer and concentrically disposed with respect thereto.

Claim 54 (withdrawn): The tubing of claim 53 wherein the second layer is a polyolefin.

Claim 55 (withdrawn): The tubing of claim 54 wherein the polyolefin is obtained from polymerizing an olefin.

Claim 56 (withdrawn): The tubing of claim 55 wherein the olefin is selected from the group consisting of cyclic olefins and acyclic olefins.

Claim 57 (withdrawn): The tubing of claim 55 wherein the polyolefin is a 1,2 polybutadiene.

Claim 58 (withdrawn): The tubing of claim 57 wherein the 1,2 polybutadiene is a syndiotactic 1,2 polybutadiene.

Claim 59 (withdrawn): The tubing of claim 57 wherein the 1,2 polybutadiene is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 60 (withdrawn): The tubing of claim 59 wherein the second layer is concentrically positioned about the first layer.

Claim 61 (withdrawn): The tubing of claim 59 wherein the second layer is concentrically positioned inside the first layer.

Claim 62 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity less 50%.

Claim 63 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity less than about 45%.

Claim 64 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of less than about 40%.

Claim 65 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of from about 13% to about 40%.

Claim 66 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of from about 15% to about 30%.

Claim 67 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a melting point temperature of less than about 90°C.

Claim 68 (withdrawn): The tubing of claim 59 wherein the low crystallinity syndiotactic 1,2 polybutadiene has a melting point temperature of higher than about 91°C but less than 120°C.

Claim 69 (withdrawn): A multiple layered tubing comprising:

a first layer of a polymer blend comprising a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature, and a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature;

a second layer of a polymeric material attached to the first layer and concentrically disposed with respect thereto; and

wherein the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys.

Claim 70 (withdrawn): A multiple layered tubing comprising:

a first layer of a polymer blend of a first low crystallinity syndiotactic 1,2 polybutadiene having a first melting point temperature less than about 90°C and present from about 1% to about 99% by weight of the blend and a second low crystallinity syndiotactic 1,2 polybutadiene having a second melting point temperature higher than about 91°C and present from about 1% to about 99% by weight of the blend;

a second layer of a polymeric material attached to the first layer and concentrically disposed with respect thereto; and

wherein the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys.

Claim 71 (withdrawn): The tubing of claim 70 wherein the second layer is a polyolefin.

Claim 72 (withdrawn): The tubing of claims 71 wherein the polyolefin is obtained from polymerizing an olefin.

Claim 73 (withdrawn): The tubing of claim 72 wherein the olefin is selected from the group of cyclic olefins and acyclic olefins.

Claim 74 (withdrawn): The tubing of claim 71 wherein the polyolefin is a syndiotactic 1,2 polybutadiene.

Claim 75 (withdrawn): The tubing of claim 71 wherein the polyolefin is a third low crystallinity syndiotactic 1,2 polybutadiene.

Claim 76 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity less than 50%.

Claim 77 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity less than about 45%.

Claim 78 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of less than about 40%.

Claim 79 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of from about 13% to about 40%.

Claim 80 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a crystallinity of from about 15% to about 30%.

Claim 81 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a melting point temperature of less than about 90°C.

Claim 82 (withdrawn): The tubing of claim 75 wherein the third low crystallinity syndiotactic 1,2 polybutadiene has a melting point temperature of higher than about 91°C but less than about 120°C.

Claim 83 (withdrawn): A multiple layered tubing for an infusion pump comprising:
a first layer of a first polymer blend of a first low crystallinity syndiotactic 1,2 polybutadiene having a first melting point temperature less than about 90°C and present from about 1% to about 99% by weight of the first blend and a second low crystallinity syndiotactic 1,2 polybutadiene having a second melting point temperature higher than about 91°C and present from about 1% to about 99% by weight of the first blend;

a second layer of a polymeric material concentrically disposed within the first layer and attached thereto and being of a second polymer blend comprising a third low crystallinity syndiotactic 1,2 polybutadiene present from about 1% to about 99% by weight of the second blend and having a third melting point temperature, and a fourth 1,2 polybutadiene present from about 1% to about 99% by weight of the second blend and having a fourth melting point temperature higher than the third melting point temperature; and

wherein the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys.

Claim 84 (withdrawn): The tubing of claim 83 wherein the tubing has an original cross-sectional diameter and retains 95% of the original cross-sectional diameter after stretching the tubing with a 5 lb weight for 10 seconds.

Claim 85 (withdrawn): The tubing of claim 84 wherein the third melting point temperature is less than about 90°C.

Claim 86 (withdrawn): A multiple layered tubing comprising:
a first layer of a first low crystallinity syndiotactic 1,2 polybutadiene;
a second layer of a second low crystallinity syndiotactic 1,2 polybutadiene; and
wherein the tubing having been exposed to sterilizing radiation from about 15 kGys to about 45 kGys.

Claim 87 (withdrawn): A tubing comprising:
a first 1,2 polybutadiene present from about 1% to about 99% by weight of the tubing and having a first melting point temperature;
a second 1,2 polybutadiene present from about 1% to about 99% by weight of the tubing and having a second melting point temperature higher than the first melting point temperature; and
the tubing having been exposed to a heat treatment process.

Claim 88 (withdrawn): The tubing of claim 87 wherein the tubing has a first tendency to increase in modulus of elasticity over time prior to being exposed to the heat treatment process and a second tendency to increase in modulus of elasticity over time after being exposed to the heat treatment process, wherein the second tendency is less than the first tendency.

Claim 89 (withdrawn): The tubing of claim 87 wherein the tubing has a modulus of elasticity less than about 5,000 psi.

Claim 90 (withdrawn): The tubing of claim 89 wherein the tubing has a yield strength of from about 1500 psi to about 600.

Claim 91 (withdrawn): A method for fabricating a tubing comprising the steps of:
providing a blend of a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature and a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature higher than the first melting point temperature;
extruding the blend into a tubing; and
heating the tubing to reduce the tendency of the tubing to crystallize over time.

Claim 92 (previously presented): A polymer blend for fabricating medical products comprising:
a first 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a first melting point temperature; and

a second 1,2 polybutadiene present from about 1% to about 99% by weight of the blend and having a second melting point temperature different than the first melting point temperature wherein the first and second 1,2 polybutadienes are crosslinked.

Claim 93 (previously presented): The blend of claim 92 wherein the first 1,2 polybutadiene is syndiotactic.

Claim 94 (previously presented): The blend of claim 92 wherein the first 1,2 polybutadiene is a low crystallinity syndiotactic 1,2 polybutadiene.

Claim 95 (previously presented): The blend of claim 92 wherein the first and the second 1,2 polybutadiene are each a low crystallinity syndiotactic 1,2 polybutadiene.